

**FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-7422**

**FACILITY NAME: Roy N. Carlson, Inc.**

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**INTRODUCTION**

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-7422. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to the City of Stanwood POTW. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establishing requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response.

<b>GENERAL INFORMATION</b>	
Applicant	Roy N. Carlson, Inc.
Facility Name and Address	Roy N. Carlson, Inc. PO Box 725 8506 Cedar Home Drive Stanwood, WA 98292-0727
Type of Facility	Transportation of edible bulk commodities by truck
Facility Discharge Location	Latitude: 48° 14' 32" N Longitude: 122° 18' 22" W
Treatment Plant Receiving Discharge	City of Stanwood, WA-002029
Contact at Facility	Name: Royce K. Carlson, Manager Telephone #: (360) 629-4542
Responsible Official	Name: Royce K. Carlson Title: Manager Address: P.O. Box 725 8506 Cedar Home Drive Stanwood, WA 98292 Telephone #: (360) 629-4542 FAX #: (360) 629-6518

## BACKGROUND INFORMATION

### *DESCRIPTION OF THE FACILITY*

Roy N. Carlson, Inc., operates a fleet of transport tank and trailer trucks and is engaged in the hauling of edible bulk commodities. Flour, sugar, milk, and vegetable oils are the most commonly hauled materials. Honey and vinegar are hauled less commonly. Tanker truck cleaning operations are the main source of wastewater generated from the facility. According to the applicant, milk is cleaned from the tanks at the dairy. The most recent state waste discharge permit application indicated a maximum daily discharge volume of 3,000 gallons, and an average monthly discharge of 600 gallons per day. A study by KCM consultants indicated average daily water usage of 2,350 gpd with peak daily usage rates at approximately 6,000 gpd. During truck washing periods, water usage averaged 3,400 gpd. Both flow volumes and concentrations were observed to be extremely variable. Since that time, Carlson has adopted best management practices, which, based on information reported on discharge monitoring reports, has resulted in typical daily maximum discharges of less than 1500 gallons per day. The significant BOD and COD loadings from this facility are described in greater detail in the wastewater characterization section below.

### TREATMENT PROCESSES

Washing of the interior of the trucks occurs in a covered wash area equipped with a grated trench drain. Tank heels and concentrated wash water are pumped to a tank trailer for haulage to a farm for use as cattle feed. The remaining wash and rinse water is discharged from a trench drain located in the floor of the covered wash area, to a sump with a capacity of approximately 300 gallons. The sump is equipped with an outlet tee for capture of sinking and floating material. The sump is periodically pumped and hauled by Cuz's septic service. The wastewater is then conducted northward to a 1,500-gallons sump, and then southward to another 1,500-gallon sump. The wastewater is pumped from this sump in a northwesterly direction to another sump on the north side of the building, prior to being pumped to the sanitary sewer. A sample point accesses the line between the latter two sumps. The sample point is located in the northeast corner of the maintenance shop.

### *PERMIT STATUS*

The applicant submitted a permit application in 1996. The Department did not act on the application other than by performing an inspection, due to the absence of the City's signature on Part J of the application. Subsequent sampling performed by the City's consultant (Tetra Tech/KCM) indicated that loadings from the applicant were likely to be much higher than those indicated on the 1996 application. Therefore, the Department solicited a second application to reflect the more recent data available. The second permit application was submitted to the City of Stanwood on December 14, 1999; signed by the City's representative on December 27, 1999; and forwarded to the Department in January 2000. The Department accepted the application as noted on the Department's letter of January 27, 2000. The Department sent a Notice of Temporary State Waste Discharge Permit to the applicant on June 12, 2000. The first permit for the facility was issued on May 4, 2001, with an expiration date of June 30, 2003.

The Department received an application for permit renewal on April 28, 2003. The Department issued a letter acknowledging receipt of the application on April 29, 2003. A Notice of Temporary State Waste Discharge Permit was issued to the Permittee on June 13, 2003.

#### COMPLIANCE WITH THE PREVIOUS PERMIT

The Department issued a Notice of Temporary State Waste Discharge Permit letter to the applicant on June 12, 2000. The letter stated that the temporary permit would take effect on July 1, 2000. The limitations appearing in the permit were based on the information contained in the State Waste Discharge Permit Application submitted by the applicant. Specifically, the limitations stated in the Department's temporary permit letter were:

Maximum Daily Discharge Flow:	6000 gpd
Maximum Average Monthly Flow:	2000 gpd
Maximum BOD Concentration:	800 mg/L
Maximum COD Concentration:	1200 mg/L
Maximum TSS Concentration:	400 mg/L
Maximum TDS Concentration:	600 mg/L

The City of Stanwood collected numerous samples of the effluent discharged by the applicant. The data indicated that the industrial wastewater discharged by the applicant greatly exceeded the limitations set forth above. As a result of the data collected by the City of Stanwood, the Department issued a Notice of Violation on September 29, 2000, for discharge of BOD<sub>5</sub> in excess of the 800 mg/L and 50 pound per day limitations contained in the temporary permit.

Consequently, a compliance schedule was placed in the permit issued May 4, 2001, which required that the applicant submit an Engineering Report and Plans and Specifications to the Department describing the measures to be undertaken to achieve compliance with the limitations contained in the proposed permit.

Part S8.A of the permit issued on May 4, 2001, contained the requirement that the Permittee submit an Engineering Report no later than October 15, 2001. The permit contained the requirement that the Engineering Report include *"an evaluation of technologies to achieve compliance with the final limitations set for flow and pollutant loadings in Part S1"* of the permit. The permit also contained the requirement that an evaluation of *"changes in operation procedures which could be undertaken to achieve compliance with permit limitations."* The permit also contained the requirement that the engineering report contain *"A recommendation of the chosen technology/operational changes to achieve compliance with the final limitations set for flow and pollutant loadings in Part S1."*

A Notice of Penalty was issued to the applicant on September 20, 2002, for failure to submit Discharge Monitoring Reports for the period June 2001 through February 2002, failure to submit an Engineering Report by the required deadline (October 15, 2001), and failure to submit Plans and Specifications by the required deadline (November 15, 2001). The Notice of Violation associated with the above Notice of Penalty also cited the Permittee for failure to submit a Spill Plan, a Slug Discharge Control Plan, and a Stormwater Pollution Prevention Plan by the required deadlines.

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Roy N. Carlson, Inc., submitted an Engineering Report on January 17, 2003. The report contained the conclusion that *"treatment of the wastestream was not reasonably feasible"* based on evaluation of other similar facilities' treatment systems. The report contained the statement *"Based on the above, we found it in our best interests to implement intense source control measures while employing the existing wastewater collection system to implement stringent flow equalization."* The Permittee began submitting DMR's on April 2002. As the DMR's have indicated substantial compliance with the final discharge limitations set forth in the permit, the Department has decided, despite lack of detailed economic and technical analysis in the Engineering Report, to tentatively accept the conclusion of the Engineering Report, that effluent limitations could be achieved by means of implementation of best management practices largely consisting of source control. The source control method adopted by the Permittee largely consists of capture of the highest strength portion of the cleaning wastewater in a dedicated trailer tank, and hauling the tank to a farm for use as cattle feed.

The Solid Waste Plan, Slug Discharge Control Plan, Stormwater Pollution Prevention Plan, and Spill Plan required in the permit, and listed in the NOV associated with the \$10,000 penalty, were submitted to the Department on August 1, 2002.

The City of Stanwood has indicated satisfaction with the sample point established for monitoring of industrial wastewater generated at this site. The sample point is arranged in such a manner as to capture the industrial-only wastewater prior to mixture with other wastewaters. The sample site is available during normal operating hours between 8:00 AM and 10:00 PM, and is available upon request by the City of Stanwood during the remaining hours of each day.

#### WASTEWATER CHARACTERIZATION

In 1999, the City of Stanwood's consultant, Tetra Tech/ KCM, Inc., conducted sampling for BOD<sub>5</sub> and COD at the Carlson manhole located on Cedarhome Drive. Three businesses (Carlson Trucking, Biesecker Biochemical, and a welding and fabrication company) discharge to this manhole by means of a three-inch force main. The City collected the samples from the three-inch force main where it entered the manhole. Water supply meter readings were recorded at Carlson Trucking and Biesecker Biochemical during almost every day of the twenty-day survey. The consultant concluded that, based on water meter readings and visual observations, the majority of water consumption and wastewater load at that point was from Carlson Trucking. Average BOD<sub>5</sub> concentrations were determined to be "consistently high, often between 1000-2000 mg/L." On May 20, 1999, a 24-hour composite sample was collected which indicated a BOD<sub>5</sub> concentration of 10,600 mg/L. The consultant indicated the June 3, 1999, COD sample to have a concentration of 46,000 mg/L. A sample, with a conductivity of (2.10 mS/cm<sup>2</sup>), was also observed on that date. The dates on which elevated BOD<sub>5</sub> and COD concentrations were noted corresponded with times during which Carlson was observed to be washing trucks.

COD/ BOD<sub>5</sub> ratios averaged 4.5. During truck washing days at the end of the week, COD loadings ranged between 111 and 860 pounds per day.

The average BOD<sub>5</sub> loading measured at the sample point was 34 pounds per day. However, during truck washing days at the end of the week, BOD<sub>5</sub> loads ranged between 20 and 331 pounds per day.

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KCM, the City's consultant, observed that the BOD<sub>5</sub> loading was strongly correlated with water usage. However, the correlation of high BOD loadings with times of truck cleaning activity and the correlation of high flows with high loading all appear to strongly support the conclusion that Carlson, as opposed to the welding shop and Biesecker Biochemical, is the major contributor of BOD and TSS loadings. The consultant's sampling data is summarized in the table below.

<b>Summary of 1999 Sampling Data at Manhole Located on Cedarhome Drive</b>			
<b>Parameter</b>	<b>Minimum</b>	<b>Average</b>	<b>Maximum</b>
Flow, gpd		2,350	6,000
Flow, gpd (TWD)		3,400	
BOD <sub>5</sub> , mg/L	2,352		10,600
BOD <sub>5</sub> , mg/L (TWD)			10,600
BOD <sub>5</sub> , pounds/day		34	
BOD <sub>5</sub> , pounds/day (TWD)	20	62	331
COD, mg/L	253		46,000
COD, mg/L (TWD)			46,000
COD, pounds/day		158	
COD, pounds/day (TWD)	111	297	860
COD/BOD <sub>5</sub> (ratio)	0.9	4.5	27.7
pH	5.02	6.62	8.10
<i>TWD indicates truck washing days</i>			

It should be noted that the Department has reason to believe that Biesecker Biochemical may have engaged in disposal of some organic materials with high BOD concentrations (as opposed to mass loadings) in the past. However, the relatively small volume of such discharges would be unlikely to result in the higher loadings observed during the sampling program.

The application for a State Waste Discharge Permit submitted by Roy N. Carlson, Inc., in December 1999, reported the following projected wastestream characteristics. The applicant used "projections based on past sampling, projected wastestream treatments, and our agreement with the City of Stanwood."

<b>Characterization of Carlson Effluent from 1999 Application for State Waste Discharge Permit</b>	
<b>Parameter</b>	<b>Average</b>
BOD <sub>5</sub> , mg/L	800
COD, mg/L	1,200
TSS, mg/L	400
TDS, mg/L	600
Total oil and grease	0
Lead, total, mg/L	0.05
Zinc, total, mg/L	0.10
pH, standard pH units	6.5

Following issuance of the State Waste Discharge Permit on May 4, 2001, the Permittee adopted source control procedures. However, the Permittee did not begin sampling and submitting Discharge Monitoring Reports until April 2002. Based on the values reported in the Discharge Monitoring Reports, flow and BOD<sub>5</sub> values appear to be significantly reduced compared to the values at the time prior to adoption of the source control practices. The values indicated on recent Discharge Monitoring Reports are shown in the table below.

Values of Pollutant Parameters Reported on Carlson Discharge Monitoring Reports July 2002 through May 2003							
Month	TSS (pounds per day)	Flow (gallons per day)	BOD <sub>5</sub> (pounds per day)	COD (pounds per day)	Oil & Grease (mg/L)	pH minimum and maximum, standard pH units	
						Minimum	Maximum
July 2002	1.2	1000	17	29	210	7.43	6.13
August 2002	1.7	1080	20.3	7.5	130	7.23	6.19
September 2002	0.76	935	9.05	11.09	53	6.97	6.17
October 2002	0.52	989	8.96	8.19	38	8.25	6.12
November 2002	1.08	942	37.5	54	28	7.56	6.13
December 2002	0.7	877	17.4	17.1	23	8.74	6.23
January 2003	1.25	946	39.9	34.4	46	7.54	6.39
February 2003	2.09	956	34.8	53.3	86	8.56	6.81
March 2003	0.5	904	11.2	12.7	36	7.78	6.48
April 2003	1.3	1141	9.5	16	48	8.04	7.46
May 2003	0.38	1365	7.58	13.1	22	8.81	7.08
Average	1.04	1012	19.4	23.3	65.5	7.90	6.47
Minimum	0.38	877	7.58	7.5	22.0	6.97	6.12
Maximum	2.09	1365	39.9	54.0	210	8.81	7.46

#### SEPA COMPLIANCE

The Carlson truck cleaning operations were in existence at the time the first application was made for a State Waste Discharge Permit. In addition, a State Waste Discharge Permit has already been issued for this site. Therefore, re-issuance of this permit does not require submittal of an environmental checklist.



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**PROPOSED PERMIT LIMITATIONS**

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

*TECHNOLOGY-BASED EFFLUENT LIMITATIONS*

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment (AKART) of discharges to waters of the state (WAC 173-216-110).

The oil and grease limitation of 100 mg/L is based on AKART criteria. Although no site-specific studies were performed to determine the consistency of this limitation with AKART criteria, the Department considers this level of compliance to be achievable with conventionally available separation methods.

The final limitations for BOD and TSS were developed based on allocations by the City of Stanwood as described below.

*EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS*

In order to protect the City of Stanwood from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on allocations established by the City of Stanwood. As the City of Stanwood POTW is considered to be overloaded, the allocation of industrial loadings for BOD, and to a lesser extent TSS, is considered to be critical to maintain proper operation of the POTW. The final limitations recommended by the City of Stanwood are found in the final daily maximum column below. Interim limits are indicated in the interim limitation column. The final limitations took effect April 1, 2002.

<b>Limitations in Permit Issued to Roy N. Carlson, Inc., on May 4, 2001</b>		
<b>Pollutant Parameter</b>	<b>Final Daily Maximum</b>	<b>Interim Daily Maximum</b>
BOD <sub>5</sub> , pounds per day	50	100
COD, pounds per day	150	300
TSS, pounds per day	50	100

*COMPARISON OF LIMITATIONS IN THE EXISTING PERMIT ISSUED MAY 4, 2001,  
WITH THOSE IN THE PROPOSED PERMIT*

COMPARISON OF LIMITATIONS IN THE EXISTING AND PROPOSED PERMITS		
Pollutant Parameter	Limitations (Final) in Existing Permit (issued May 4, 2001)	Limitations in Proposed Permit
BOD <sub>5</sub> , pounds per day	50	50
COD, pounds per day	150	150
TSS, pounds per day	50	50
Oil and Grease, mg/L	100	100

**MONITORING REQUIREMENTS**

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly and that effluent limitations are being achieved (WAC 173-216-110).

The proposed permit contains a provision which requires that the Permittee maintain a well calibrated flow meter, and collect BOD, TSS, and oil and grease samples as flow proportional samples. The Permittee is responsible for performing sampling and analytical work.

The monitoring schedule is detailed in the proposed permit under Conditions S1 and S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring. Monitoring for oil and grease is required once per month. The monitoring frequency in the proposed permit is weekly for BOD, monthly for COD, TSS, and oil and grease, with the provision that the samples be collected on days during which the heaviest cleaning of transportation equipment occurs.

**OTHER PERMIT CONDITIONS**

*REPORTING AND RECORDKEEPING*

The conditions of S3 are based on the authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges [WAC 273-216-110 and 40 CFR 403.12 (e), (g), and (h)].

### *OPERATIONS AND MAINTENANCE*

The proposed permit contains Condition S.5 as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

### *PROHIBITED DISCHARGES*

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

### *DILUTION PROHIBITED*

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

### *SOLID WASTE PLAN*

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under authority of RCW 90.48.080, that the Permittee maintain and update as necessary, its Solid Waste Plan to prevent solid waste from causing pollution of waters of the state.

### *NONROUTINE AND UNANTICIPATED DISCHARGES*

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean waste waters but may be contaminated with pollutants. The permit contains an authorization for nonroutine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, the Department may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

### *SPILL PLAN*

The Department has determined that the Permittee stores a quantity of chemicals or pollutants that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

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The proposed permit requires the Permittee to maintain and modify its existing plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

#### *SLUG DISCHARGE CONTROL PLAN*

The Department has determined that the Permittee has the potential for a batch discharge or a spill that could adversely affect the POTW. Therefore, the Permittee is required to maintain and update, as necessary, a Slug Discharge Control Plan [40 CFR 403.8 (f)].

#### *GENERAL CONDITIONS*

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending, or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes, or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

#### **PUBLIC NOTIFICATION OF NONCOMPLIANCE**

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

#### **RECOMMENDATION FOR PERMIT ISSUANCE**

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for such a period as to expire in five (5) years.

#### **REFERENCES FOR TEXT AND APPENDICES**

Technical Memorandum – Wastewater Characterization Study, City of Stanwood Public Works Department, Tetra Tech/KCM Inc., Draft of August 1999.

## APPENDICES

### APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to issue a permit to the applicant listed on page one of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public Notice of Application (PNOA) has been published to inform the public that an application had been submitted and to invite comment on the issuance of this permit.

The Department published a Public Notice of Draft (PNOD) on December 5, 2003, in the *Everett Herald* to inform the public that a draft permit and fact sheet were available for review. Interested persons were invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents were available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments were mailed to:

Water Quality Permit Coordinator  
Department of Ecology  
Northwest Regional Office  
3190 – 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008

Any interested party commented on the draft permit or requested a public hearing on the draft permit within the thirty (30) day comment period to the address above. The request for a hearing indicated the interest of the party and reasons why the hearing was warranted. The Department would have held a hearing if it determined there was a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing was circulated at least thirty (30) days in advance of the hearing. People expressing an interest in the permit were mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department would consider all comments received within thirty (30) days from the date of Public Notice of Draft, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (425) 649-7201, or by writing to the address listed above.

#### APPENDIX B—GLOSSARY

**Ammonia**—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Average Monthly Discharge Limitation**—The average of the measured values obtained over a calendar month's time.

**Best Management Practices (BMPs)**—Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural, and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD<sub>5</sub>**—Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD<sub>5</sub> is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass**—The intentional diversion of waste streams from any portion of the collection or treatment facility.

**Categorical Pretreatment Standards**—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Compliance Inspection - Without Sampling**—A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance Inspection - With Sampling**—A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

**Composite Sample**—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be “time-composite” (collected at constant time intervals) or “flow-proportional” (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

**Continuous Monitoring**—Uninterrupted, unless otherwise noted in the permit.

**Engineering Report**—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Grab Sample**—A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

**Industrial User**—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

**Industrial Wastewater**—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

**Interference**—A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) [including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA], sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research, and Sanctuaries Act.

**Local Limits**—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Maximum Daily Discharge Limitation**—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

**Pass-through**—A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

**pH**—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

FACILITY NAME: Roy N. Carlson, Inc.

**Slug Discharge**—Any discharge of a nonroutine, episodic nature, including but not limited to an accidental spill or a noncustomary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

**State Waters**—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater**—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based Effluent Limit**—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

**Total Suspended Solids (TSS)**—Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**Water Quality-based Effluent Limit**—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.